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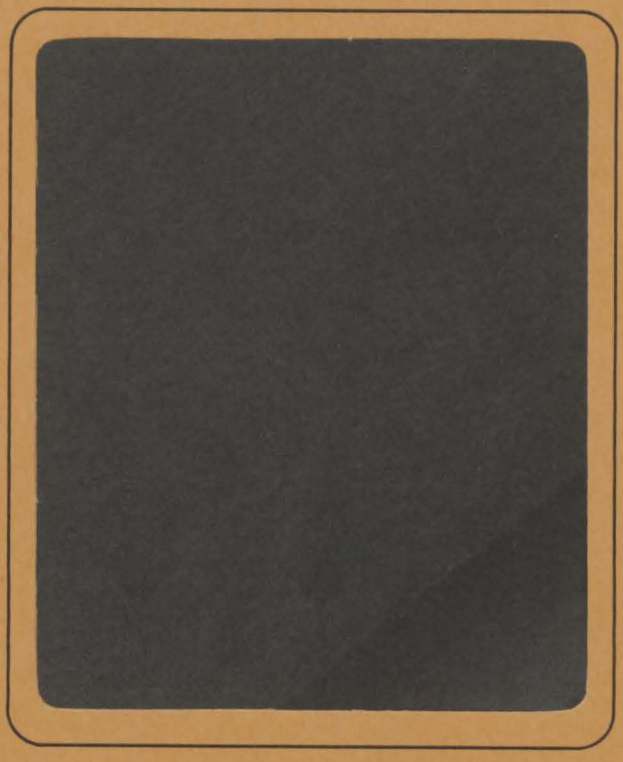

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A COMPARATIVE STUDY OF THE COSTS OF ADMINISTRATION IN PUBLIC AND PRIVATE ELEMENTARY SCHOOLS

by

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The purposes of this study are to examine the hypothesized costs of administration in public and private schools in the light of current economic theory of bureaucratic behavior, to determine whether there are significant differences in per pupil administrative costs between the public and private educational systems and, if there are, to determine the sources of those differences.

I hypothesized that there were significant differences in the costs of administering the elementary educational programs in the two systems and that these were the result of budget maximizing bureaucratic behavior in the public sector. I chose to examine the public and parochial school systems of a midsize, midwestern urban community. In order to carry out the study, two trips were made to the area during which I interviewed the key administrative personnel in each system and gathered the necessary data, making sure that I had comparable numbers and information for the two systems.

My primary sources were the annual district and school building budgets for the five-year period from 1983-84 through 1987-88. Having extracted those costs which were administrative from the total budgets, compiled and studied the data, I then returned to the area to review and validate the data, share the results with the principal administrative personnel and obtain their reactions and comments, most of which are incorporated into the study.

Review of Relevant Literature

The theory underlying this study is that presented by William A. Niskanen, Jr., and others who have examined and attempted to analyze the behavior of bureaucratic organizations. A bureau is

defined as a nonprofit organization that is financed, at least in part, by a periodic appropriation or grant and in which the owners or employees do not appropriate any part of the difference between revenues and costs as personal income.[1]

Niskanen sees the relationship between a bureau and its government review group as that of a bilateral monopoly where the bureau "sells" its service only to the government, and the government "buys" only from the bureau.[2] The bureau operates in a market which involves the exchange of a promised set of activities and the expected output of these activities for a budget rather than a per unit price. According to Niskanen, this and the bilateral monopoly relationship tend to give the bureau the same type of bargaining power as a profit-seeking monopoly--an all-or-nothing choice. The "sponsor" is faced with the lack of a significant alternative and an unwillingness to forego the services offered.[3]

Niskanen makes the assumption that the bureau acts to maximize its budget, and this is the determinant for its preferred output level, while government's preferred output is determined by conventional majority rule models or by a "high demand" committee; i.e., a representative committee whose members have a higher demand for the service received than the median demand of the whole population group.[4] He hypothesizes that the larger the monopoly power of the government and the bureau that supplies the services, the larger will be the amount of overspending.[5] He further hypothesizes that a strictly nonprofit organization financed entirely by the sale of output at a uniform price and operating in the budget-constrained

region will supply the optimal level of output and do so at a minimum cost per unit of service.[6]

The assumption that the bureau acts to maximize its budget raises the question of whether budget maximization by bureaus is consistent with utility maximization by bureaucrats; that is, can it be assumed that the bureaucrat's utility is, at least in part, a function of the size of the bureau's budget? It can be argued that since the bureaucrat is not able to appropriate any of the discretionary budget to personal income, he/she is not motivated by increasing the size of the discretionary budget; i.e., the difference between the maximum budget that would be approved by the government review group and the minimum cost of producing the output. On the other hand, there seems to be some empirical evidence that salary, status, and discretion, assumed to be elements of the bureaucrat's utility function, are positive functions of the bureau's budget.[7]

Niskanen argues that while the bureaucrat's personal income is not dependent on the size of the bureau's budget, the other elements of the bureaucrat's utility function such as status, perquisites, etc., are and, therefore, there is incentive to maximize the bureau's discretionary budget by providing an oversupply of the output and by maximizing the desired perquisites.[8] Niskanen goes on to state that to the extent there is any effective competition from other sources of supply, the demand for output function facing a bureau will be both lower and more elastic, and that if government can procure the service from another source at a constant unit cost, the demand function facing the bureau is horizontal at this unit cost, and the bureau's budget is a linear function of output.[9]

According to Niskanen, the bureaucrat's personal utility is derived from the maximization of his/her salary, perquisites, reputation, power, patronage, the output of the bureau, the degree of ease in making changes, and the level of ease in managing the bureau.[10] The bureaucrat needs to be able to provide increasing budgets for his/her subordinates, in turn, to disperse in salaries and contracts. Citing "Parkinson's Law" which is based on the popular belief that bureaus have an inherent tendency to grow and will grow exponentially over time independent of the demand for their output, Niskanen points out that this argument is also central to the work done by Anthony Downs on the behavior of bureaucracies.[11]

Julius Margolis, on the other hand, argues that in defining the bureaucrat's utility function, it is necessary to consider lifetime aspirations, and that the surest way to advancement may well be the minimization of the bureau's budget.[12] He speculates that "doing a good job" is more important to advancement than budget growth."[13]

Breton and Wintrobe, in their critique of Niskanen's work, take a somewhat different position with regard to the behavior of bureaucracies. While retaining Niskanen's budget maximizing hypothesis, they reject the characterization of bureaucracies as bilateral monopolies and assume that since bureaucratic managers are subject to the exercise of hierarchical controls by the governing agency, a bureau may be a monopoly supplier, but individual bureaucrats are not monopolists. Their careers are dependent, at least in part, on the sponsor's evaluation of their performance. The "power" of the bureau over its sponsor lies in its ability to control information, rather

than in being a monopoly supplier. This potential control of information on the part of the bureau raises the issue of the controls needed by the sponsor to efficiently manage the bureau and bureaucrats when the necessary information is not "free" and a need to examine the costs involved in obtaining the information. Antidistortion or control devices are available at a cost; their value lies in the reduction of excessive budgeting by the bureau. The sponsor should incur control costs up to the point at which the marginal benefit in reduced bureau expenditures equals the marginal costs of the controls.[14]

In her study, Judith Gruber asserts that the size of bureaucracies and their budgets are, to some degree, the result of society's efforts to exert controls and the costs resulting from this. According to Gruber, there are effectiveness costs and enforcement costs involved in constraining bureaucracies and their budgets. Effectiveness costs occur when sponsors constrain bureaucrats in ways that prevent or undermine their ability to do the job. They result from the sponsor's efforts to prescribe and dictate to the bureaucrat how to go about achieving desired objectives and to place constraints on the bureaucrat as to what "technology" or input mix is to be used. Enforcement costs would be those resulting from efforts to ensure compliance with prescribed policies and procedures. The two significant variables involved in determining the costs of control, whether effectiveness or enforcement costs, are the certainty of the technology and the degree of specialization involved. Certain technology implies that we know how to do something and we can confidently

estimate how much it will cost to do it. Effectiveness cost will be greater in situations with uncertain technologies since it is more likely that the controllers may tell the bureaucrat to do the wrong things or may impose constraints that are unduly restrictive. Enforcement costs are also more likely to arise in policy areas with uncertain technologies since it is more difficult to judge whether failure to comply on the part of the bureaucrat is the result of willful disregard of the sponsor's intent or results from constraints due to inadequacies in the state of knowledge in the field (uncertain technology) or constraints arising from inadequate resources.[15] She builds her arguments on Anthony Downs' position that technical complexity may give a bureau relatively greater freedom from external pressure and control and that the harder it is to measure a bureau's success, the less likely it is that the bureau will receive clear signals about what it ought to do from the agents in its power setting.[16]

The potential for effectiveness costs is compounded in policy areas where the technology is both uncertain and knowledge concerning the technology is highly specialized. In these cases, tight constraints placed on bureaucrats might well create excessive effectiveness costs, either by depriving the bureaucrats of the needed flexibility to experiment or by dictating the wrong technologies or experiments as well as increased enforcement costs if the bureaucrats involved attempt to resist or circumvent policies or procedures they see as inappropriate or beyond their ability to meet.[17]

Public School Administration as a Form of Bureaucracy

When studying the economics of bureaucracies which provide public services, and specifically those of educational administration, one is engaged in attempting to measure the production relationships along with the resulting cost relationships. One troublesome aspect of this endeavor lies in the definition and measurement of the "outputs" that are required in order to compare costs to appropriate output levels. While difficult to determine, such measurements and comparisons are essential to rational decision making. When applied to the area of education, this relationship between costs and appropriate output is very difficult to measure since the technology is uncertain and there is not a clear consensus as to what the desired output should be.

Education is a service provided in both the public and private sectors in the United States. In the public sector it is provided through a structure which fits the definition of a bureau, while in the private sector it is more typically provided by nonprofit organizations financed by the sale of the output at a per unit price; i.e., tuition. Every year during the past decade and more, the United States has increased expenditures for public elementary and secondary schools. The national average expenditure per pupil has increased annually. Between 1970-71 and 1978-79, current expenditures per pupil in average daily attendance rose 122 percent which, when adjusted for inflation, amounted to an increase of 29 percent. While spending in inflation adjusted dollars declined slightly in 1979-80 and 1980-81, between 1980-81 and 1981-82 it increased about 1 percent. From 1981-82 to 1982-83, inflation adjusted expenditures per pupil rose a

sharp 4 percent.[18] During this time, when the public resource dollars allocated to education have continually increased, there is little evidence that would suggest that the "output" has improved either in quality or quantity. In fact, criticism and public dissatisfaction with the "output" have increased and intensified. We have seen significant publications such as Nation at Risk reach the level of popular reading and discussion and a plethora of documents at both federal and state levels which attempt to evaluate the effectiveness of public education. Most recently in Minnesota, the legislative auditor's office issued its report, High School Education, to the Governor of the state. Sharply critical of public education in the state, the report points out that Minnesota is losing--or perhaps has lost--its leading edge in education.

While current criticisms have been aimed primarily at the output in terms of qualitative issues, most studies in recent years have focused on "inputs" or activities intended to produce the desired output, using quantitative data such as enrollment (i.e., number of students and/or graduates) as the measure of educational "output" and have focused on the average total cost of elementary and secondary education at both the district and individual school level. Typically, the dependent variable has been the per pupil cost, and the independent variables have included average teachers' salaries, number of credits offered, the average number of courses taught per teacher, the percentage of classrooms built since 1950, operating expenditures, and changes in enrollment. For the most part, these studies have examined secondary schools and, consequently, have needed to make

adjustments for quality differences between schools due to significant differences in and diversity of offerings, specialized programs, and other qualitative factors. (Elementary schools generally have more uniform offerings and, therefore, require less adjustment for quality in terms of course offerings.) Most of these studies have dealt with issues of overall, total per pupil costs or have focused specifically on instructional costs per pupil.

In 1955, in an address to the American Association of School Administrators, Beardsley Ruml made the following statement:

> There are no current comparative cost figures on different elements of the public school budget. As a result, there is no knowledge of relative efficiency, no incentive to experimentation or to investment in cost reducing procedures or teaching aides. The department stores of this country use comparative figures vigorously to tighten procedures, to check waste, to stimulate inventiveness, and indeed, to eliminate executive personnel that consistently falls behind. There should be similar current reporting for the public schools to assure the taxpayers that their taxes are accepted by school administrators in trust and with an informed responsibility for efficient performance on which they are willing to give a prompt and regular accounting.[19]

There does not seem to have been any significant change since 1955, and the above words of Ruml are still, in large part, very true, particularly with respect to one of the elements of school budgets, that of administration.

Among some of the less well publicized criticisms of education are those directed at educational leadership, which cite the growth of massive bureaucracies in the educational environment and support the position that better schools require better administration and the key to better administration may well be less administration. There

is little available research on how much administrative activity is needed to maintain a well-managed and efficient school system. The question of how many administrators schools need remains largely unanswered. The argument is made that the centralization of authority and responsibility is rapidly leading to ineffectiveness in public education.[20]

The trend of the past 50 years has been toward increased centralization. Public education has been transformed from tens of thousands of relatively independent "grass roots," citizen-controlled districts to centrally controlled, massive bureaucracies. Some argue that at least some of the increased costs which are unaccompanied by improved educational effectiveness are the result of this bureaucratization.

During the same period of time that this trend toward centralization and bureaucratization has taken place in the public educational system, the private schools of this country have continued to operate as relatively independent, separate institutions, which have at times rather fiercely resisted the pressures to centralize and form "school districts" as they exist in the public sector. Since this is true, the question then arises as to how administrative costs in these relatively independent schools compare to those of their more highly centralized public school counterparts, and do we have here an example of Niskanen's bilateral monopoly and budget maximizing bureaucracy in the public sector compared with a nonprofit organization providing an optimal level of output at a minimum cost per unit of service in the private sector?

School Administration Case Study

In analyzing this question, I selected the public and parochial elementary school systems of a midsize, midwestern urban community for several reasons. These school systems are seen as fairly similar in terms of quality of output; their student bodies are drawn from a relatively small and similar geographic and socioeconomic background; and there are no significant programmatic differences between them. This latter fact is also the reason that I have chosen to look only at the elementary level of education in the two systems; programmatic differences and complexities become much more pronounced on the secondary level and, therefore, cost comparisons become less valid. In addition, the public school system tends to be a relatively low-budget, economically operated system with little apparent bureaucratic "fat" or excess. It therefore provides us with a kind of "best case" scenario. The study covers the experience of these two systems over a five-year period, from July 1, 1983 through June 30, 1988.

In defining "administrative functions" of the schools, I have included the activities of the school board, office of the superintendent, finance and business offices, activities related to "membership" or attendance, the administration of the instructional program, and the on-site administrative functions of the school principal since these correspond to the generally accepted categories included under administrative costs in school accounting practice.

In computing the per pupil costs of administration in each of these two situations, I used the commonly accepted practice of weighting elementary students as equal to one and secondary students (grades 7-12) as one and a half. This resulted in the following:

TOTAL WEIGHTED ENROLLMENTS

	Public	Parochial
1983-84	7230.5	3617
1984-85	6886.0	3586
1985-86	6756.0	3488
1986-87	6794.0	3422
1987-88	6850.0	3263

Of these weighted totals, elementary enrollments constituted the following percentages:

ELEMENTARY STUDENTS
AS PERCENT OF TOTAL WEIGHTED ENROLLMENTS

	Public	Parochial
	---------percent---------	
1983-84	37	90
1984-85	43	91
1985-86	43	92
1986-87	45	93
1987-88	45	95

Because the public system is much more centralized and has a more highly developed district structure than the private system, the costs of the functions performed by the respective districts were analyzed separately from the school building administrative functions performed on-site in comparable elementary schools within the two systems. Consequently, there are two major categories of administrative cost comparisons--those of the Public School District with those of the Education Office of the Catholic Diocese and those of two public elementary schools, School A and School B, with those of School C, a parochial school in the city. Schools A and B were selected as the two sample public elementary schools at the suggestion of the superintendent of public schools because they were most comparable to

the parochial school in terms of socioeconomic background of students, parental involvement in the educational process, and the overall educational environment.

The following is the breakdown of annual total district costs per weighted elementary student for the two systems; i.e., the weighted percent of total district level administration costs allocated to the elementary level divided by the weighted number of elementary students:

ANNUAL TOTAL DISTRICT COSTS
PER WEIGHTED ELEMENTARY STUDENT

	Public	Parochial*
1983-84	$67.38	$16.57
1984-85	83.74	17.35
1985-86	102.24	20.89
1986-87	107.53	15.51
1987-88	114.53	24.14

* In calculating these costs for the parochial school system, it was necessary to make some adjustment for certain functions which are included in district costs in the public system but are performed on the local level in the parochial system, specifically those that are in the category of Direction of Fiscal. Since the responsibilities of this area are performed at the local level in each separate school in the parochial system, it was necessary to calculate the per elementary student cost for fiscal administration using local enrollment figures and then add that amount to the district costs per elementary student for General Administration and District Administration in order to get a per elementary district cost for the private schools that would be comparable to the public school costs per elementary student; i.e., including the costs of all the same functions and services.

Over the five-year period of the study, these numbers reflect a 70 percent increase in public system costs compared to a 46 percent increase in private system costs. The on-site, building administrative costs over the same time period are as follows:

ANNUAL BUILDING ADMINISTRATIVE COSTS
PER WEIGHTED ELEMENTARY STUDENT

	Public		Parochial
	School A	School B	School C
1983-84	$136.02	$165.11	$44.94
1984-85	164.87	180.79	72.02
1985-86	240.90	196.43	84.61
1986-87	241.72	222.63	66.92
1987-88	251.77	246.77	94.26

While the 1.5 weighting for secondary students is commonly used in school accounting, it may be that it does not fairly weigh the administrative activities required for secondary education. It may be that secondary school students place even greater demands on the administrative personnel than one and a half times as much as elementary school students do. Because the proportion of elementary to secondary students is so different between the two systems involved in the study, one might raise questions as to what changes would occur in the cost per elementary student if a heavier weight were assigned to secondary students and what weight would have to be given to the secondary students in order to equilibrate the administrative costs per elementary student in the two systems; that is, for them be equal. To bring the administrative costs per elementary public school student to a level equal to those in the private system, it would be necessary to give a weight greater than 10 to every secondary student in both systems. This is clearly not reasonable, so one is able to conclude that while the assigned weights may have some minimal effect on the cost comparisons, they do not account for the significant differences in costs between the two systems.

The obvious question is, what does account for these significant per pupil cost differences at both the district and on-site levels? One would expect that since the public system is more centralized, higher administrative costs would show up at the district level but that, conversely, with less centralization and central office support, on-site administrative costs would be higher in the parochial system. This, however, is not the case. Administrative costs at both the district and on-site level are higher in the public system than they are in the private system.

The immediate response to the question of accounting for these cost differences tends to be the gross differences in salaries paid to the employees of the two systems. In an attempt to deal with this variable, I determined the average salary and benefits paid to public school employees in the following major administrative areas: (1) District Administration (superintendent, assistant superintendents, and secretaries) and (2) School Building Administration (principal and secretary). I then multiplied the full-time equivalent number of parochial system employees in each category by the corresponding public school average salary and benefit costs and substituted these adjusted numbers for the actual salary and benefit costs in the parochial system as a way to account for the differences in compensation between the two systems. The following per pupil cost increases were the result:

SALARY ADJUSTED COSTS
PER WEIGHTED ELEMENTARY STUDENT

District Administration

	Public	Parochial
1983-84	$ 67.38	$24.90 (up from $16.57)
1984-85	83.74	27.38 (up from 17.35)
1985-86	102.24	34.03 (up from 20.89)
1986-87	107.53	25.21 (up from 15.51)
1987-88	114.53	38.09 (up from 24.14)

Building Administration Costs

	Public		Parochial
	School A	School B	School C
1983-84	$136.02	$165.11	$ 68.02 (up from $44.94)
1984-85	164.87	180.79	94.56 (up from 72.02)
1985-86	240.90	196.43	114.99 (up from 84.61)
1986-87	241.72	222.63	113.34 (up from 66.92)
1987-88	251.77	246.77	151.37 (up from 94.26)

Clearly, while salary and benefit differences do have some impact on the cost differentials, adjusting for them does not eliminate the differences in administrative costs between the public and the private systems.

The final area which needs to be analyzed is the ratio of administrators and administrative staff to students. It is here that we find the most significant explanations for the cost differences. On average, over this five-year period the administration to student ratio in the public school system at the district level was 1:449, while during the same period in the parochial school, the ratio was 1:1154.

RATIO OF ADMINISTRATIVE PERSONNEL
TO ELEMENTARY STUDENTS

District Level

	Public	Parochial
1983-84	1:472	1:1209
1984-85	1:444	1:1213
1985-86	1:441	1:1142
1986-87	1:440	1:1136
1987-88	1:448	1:1068

These ratios were computed by taking the total number of administrative personnel available in the district in each given year, finding the percent of that number which corresponds to the percent of weighted elementary students in the district, and then dividing the number of elementary students by that number of administrators. (Example: In 1983-84 there was a total of 15.4 administration personnel in the public school district. The weighted percentage of elementary students in the district that year was 37 percent. Thirty-seven percent of 15.4 gives us the equivalent of 5.7 administrative persons allocated to the elementary population. Since there was a total of 2,693 elementary students in the district that year, this gives us a ratio of 2693:5.7 or 1:472.

Looking at the on-site building administration, we find a somewhat similar picture. The ratios for the five-year period are as follows:

RATIO OF
BUILDING ADMINISTRATIVE PERSONNEL TO STUDENTS

	Public		Parochial
	School A	School B	School C
1983-84	1:169	1:125	1:354
1984-85	1:149	1:123	1:248
1985-86	1:119	1:122	1:230
1986-87	1:130	1:118	1:271
1987-88	1:133	1:111	1:228

Clearly, there are significant differences in the administrative costs per elementary student and in the administrator:student ratios. This brings us back to the question of how many administrators schools need and whether, indeed, the key to more efficient, or at least less costly, administration may not well be less administration. Before these questions can be answered, we must ask why there are these cost and ratio differences between the two systems.

After spending considerable time with the data and the individuals involved in the administration of both systems, it seems to me that the staffing and cost differences can be accounted for, at least in part, by factors other than budget-maximizing bureaucratic behavior in the public sector. These factors include both enforcement costs (costs of oversight activities and efforts designed to ensure compliance with established policies and procedures) and effectiveness costs (costs resulting from efforts to prescribe technologies under conditions of uncertainty and to measure the "output" or level of educational achievement) in the public school system as well as the benefits of "volunteerism," community spirit, goodwill, and a certain sense of "ownership" in the private school system.

There are enforcement costs in both systems since education does not involve a "certain technology," and the optimal level of resources necessary to produce a "well educated individual" is not known. However, my impression is that these costs are very high and are becoming increasingly higher in the public system. The office of the superintendent and the office of the fiscal manager spend a large portion of their time compiling and submitting reports to the local school board and to the state and federal governments. For many programs such as Chapter 1, a plan must be submitted; when this is approved, a budget must be developed; when this is approved, monthly reports must be submitted, as well as a final budget report at the end of the year. Without actually having recorded the hours involved, the director of fiscal operations estimated that if his office did not have to submit all the required reports and forms, they could certainly reduce staffing by at least one full-time secretary and probably by one of the two more highly paid business officers as well. The public school superintendent made the observation that during the first seven months of a given school year, his office had generated and submitted at least 20 major reports to the Department of Public Instruction.

One suspects that the marginal cost of all these required reporting activities far exceeds the marginal benefit gained from the resulting information and degree of societal "control."

In contrast, there is minimal reporting activity in the private school system. Because of the highly decentralized structure of the system, with almost all major decisions made at the local level, the system is able to capitalize on goodwill and a sense of "community"

and local control. Much more is left to the discretion of the administrator, and much less is monitored or "controlled" in a formal sense by the sponsoring group. While there is certainly a high level of accountability in the parochial system, it tends to be exercised in a less structured manner due to the closeness of the community and the more homogeneous and cohesive set of educational objectives.[21] The constraints of the budget and the price per unit of output or tuition per student become the tangible, measurable controlling forces. If the school fails to produce the desired output at an acceptable price, the student can withdraw and "purchase" the desired level of educational output elsewhere.

In addition, it seems as if effectiveness costs are also greater in the public sector than in the private. While there is certainly diversity as to what the desired outcome or "level of output" in educational terms should be in both systems, there seems to be more agreement and consensus on this issue in the private system. Parents have elected to send their children to this school which offers these programs, and they buy the existing package for a specific tuition price. On the other hand, the public school is "the only game in town" for many, all of whom are taxpayers. They have not really chosen the package, but they are paying for it. Special interest groups, concerned parents, etc., all play a large part in defining the "output" in the public system. Several of the key administrative personnel who were interviewed spoke of the expectations of the clients and what the public school superintendent termed "the response demands" placed on the public system. The public system is obliged to

meet clients' and constituents' demands. Everyone's particular concern becomes a priority to him/her, and the system must respond. Clearly, this raises what I have referred to as "effectiveness costs," costs resulting from the sponsor's efforts to prescribe programs and procedures. While this would be present to some degree in the private school system, it would be far from comparable. In addition, the private system has the ability to choose and select its clients if it so desires; obviously the public system does not have this ability.

Costs of administering programs designed to meet special or problem needs will clearly be greater than for administering a somewhat standard program. Although the costs of the "special programs" are not directly part of the costs of administration, they certainly add the administrative costs involved in budgeting, monitoring, and reporting on them. While typically there are not a large number of such programs at the elementary level, there are some. It should also be acknowledged that for some of these programs, the public school administration provides the necessary administrative services to the private schools, thus to some degree reducing private school costs and adding to administrative costs in the public system.

There may also be some economies of scale operating in the parochial system, where the local school enrollment is on the upper end of the number of students served by a single administrator, while the public schools are on the lower end, not by policy choice but as the result of demographics and school locations. During the five-year period of the study, the public system reduced the position of

principal at one of the two schools to a half-time position. During the coming school year, the other position will also be reduced to half-time, with the result that one full-time person will service both schools as principal. And it was pointed out that in some of the other schools within the public school district, there were considerably more students per administrator than was the case in School A or School B.

Another possible explanation for some of the cost differences may lay in the degree of volunteerism involved in the operations of the two systems. While this is a somewhat elusive issue and is difficult to measure, there does not seem to be any significant part of the administration of the private system which does not receive monetary compensation, with the exception of the members of the Board of Education. While the public school system does compensate the members of its Board of Education at a minimal level, in none of the five years studied does this compensation exceed $3 per elementary student, so this is not a major cost difference between the two systems. However, as I visited the parochial school and interviewed its administrative personnel, I became increasingly aware of services provided for which monetary compensation was not recorded, such as working overtime or on weekends without recording the hours, consultation and expertise offered gratis when needed, etc. While there is no way to calculate an equivalent dollar figure, these contributions to the administrative operations of the parochial systems cannot be ignored and may well account for at least a part of the cost differences between the public and private systems.

Summary, Conclusions, and Recommendations

Having taken all of these factors into account, one is still taken back to the significant differences in administrative costs per elementary student and the very large differences in administrator: student ratios. One also has to acknowledge that while private school district costs for administration of elementary education rose 46 percent over the five-year period, those same costs in the public system increased by 70 percent. How much of those cost differences is the result of controls placed on the public system and the consequent enforcement and effectiveness costs, and how much is the result of a bilateral monopoly situation in which the bureaucrat maximizes personal utility by maximizing the budget of his/her bureau?

In reviewing the data and the discussions held with key administrators, I find myself agreeing much more closely with the analysis of Margolis and Gruber than to that of Niskanen. The public school system is a bureaucracy, and there may well be instances of budget maximizing behavior. But on the whole, the public school system and its administrators seem to be more subject to the demands of the "sponsor" than they are the creators of demand for services. The public school administrator is more apt to maximize his personal utility through achieving cost reductions, effective programs, and a well-managed organization than through the acquisition of perquisites, excessive staffing, and inflated budgets.

It seems as if much of the cost differences between the public and the private systems can be attributed to the accountability demands placed upon the public system by the legislature, department

of public instruction, board of education, etc., and the programmatic demands placed upon it by an extremely diverse and heterogeneous parent and student population. The results of this limited study seem to indicate that it is possible to produce comparable educational output and quality at lower administrative cost, and that the causes of greater administrative cost in the public sector are a combination of (1) bureaucratic behavior; (2) effectiveness costs resulting from the society's inability to reach a consensus about and clearly define what the desired level of output is and how to achieve it; and (3) enforcement costs resulting from society's need to monitor and control, excessive concern with reporting, and unwillingness to allow a degree of autonomy to the professional educators.

Although this study is very limited in scope, it raises some significant questions with regard to educational policy and educational reforms. While the recommendations contained in the Legislative Auditor's report, High School Education, call for increased state regulation, expanded systems of monitoring for compliance, and a strong system of state control over local districts, the data presented in this study seems to argue in support of less rather than more, regulation, bureaucratic control, monitoring, and reporting.

Proposed programs and policies which are based on the idea that better administration may well result from less administration and which might well gain support from the results of this study include the following:

(A) School-based management that views the individual school as the fundamental decision making unit in the educational system and

creates a larger role for teachers and building principals in programming, budgeting, and staffing decisions and provides more incentive, motivation, and educational leadership to the professional level closest to the classroom and the student.

(B) Contracting for services, a system in which the school and/or parents could contract with an outside agency to perform specific educational tasks with guaranteed results, or in which the local school management team could choose to "purchase" educational services from the district or from some other alternative sources, such as private consultants, institutions of higher learning, corporations, etc.

(C) Voucher plans which would give parents and students the economic power to make significant choices with regard to the desired educational "output" and would help to create more homogeneous educational units, eliminating to some degree the need for each school to be all things to all people, attempting to meet the entire range of educational demands. (Minnesota's open-enrollment plan might be viewed as a variation on this concept, although it is considerably more restrictive in nature and as a result of policy amendments than a voucher program would be.)

Currently, the Minnesota legislature is being asked to consider programs that will tie school funds to educational outcomes. While there are some desirable features to this plan, such as a call for a clearer definition of what the desired educational "output" should be and a demand for greater accountability for dollars spent in terms of improved learner outcomes, it seems that a program of this type could

well increase the amount of bureaucratic monitoring, reporting, and control at the expense of instructional activity and learning, and require teachers to be accountable for matters which are beyond their control.

There are many unanswered questions with regard to the economics of education and the costs of educational administration and bureaucracy. Some areas of further research suggested by this initial study would include the following:

1. A cost-benefit analysis of the reporting activities currently required of school administrators by federal, state and local agencies. This would involve an analysis and study of the actual time spent per administrator on various control activities, the generation of reports, etc., and a determination of what percentage of total administrative work time is dedicated to these activities. An equivalent portion of administrative salaries plus the associated costs of support staff, computer time, etc., would provide an estimate of the dollar costs of these activities. What dollar amount can be assigned to the time and personnel required to generate these reports, and is the benefit derived from the reports equal to this cost? The value of these control devices lies in their ability to reduce excessive budgeting by the bureau, and they should be incurred only up to the point where the marginal benefit of reduced budget expenditures equals the marginal cost of the controls. One might also approach this issue from the perspective of the real costs of generating these reports; i.e., what would the administrator

be doing as a professional educator/manager if he/she were not reporting, or would it be possible to have fewer administrators/ administrative support staff and, therefore, more instructional personnel and support staff?

2. A study of how much administrative time and, therefore, expense is actually consumed by each separate and special program. The direct costs of administering programs designed to meet special or problem needs are usually included in calculating total program costs but the indirect costs to the local school or district administration resulting from the multiplicity of programs are not. In other words, the cost of a program director or coordinator would be accounted for, but the added cost of an additional program requiring oversight, monitoring, and reporting on the part of the school or district administrator would not be included in estimates of program costs. Again, an analysis of how much time each administrator devotes to managing each special program would give a much clearer picture of the actual costs of specific programs and would either bear out or disprove the contention that the greater variety and diversity of educational programs accounts for the greater administrative costs in the public system.
3. A study of how individuals and special interest groups interact with the school district and political system to effectively demand certain policies and programs and dictate the quantity of a specific public good that will be offered. The numerous "demand responses" required of the public educational system are

the result of some group or groups using political instruments to influence public policy in order to acquire a particular type of educational program, a public good which they judge to be desirable. One might attempt to evaluate the level of discontent with present educational policies and programs, the effect of the size of groups, homogeneity of preferences within groups, the degree of existing organization, and the intensity of demand as measures of how much and what types of educational programs are provided in the public sector. What is the general public's demand for educational services, and how does this compare with the effective demand generated by representatives of special interests? How is it that the latter seems to have such a significant impact on public sector education, while there is little of this experienced in the private sector?

This study has presented some very clear information as to the actual dollar costs of school administration and the differences in costs between the public and private systems. Clearly, it has raised some very challenging questions and has opened the door for further research with regard to the reasons for those differences. Hopefully, it has also presented some reasonable support for new policy directions and reconfigurations in the administration of the public school system.

NOTES

[1] William A. Niskanen, Jr., Bureaucracy and Representative Government (Chicago: Aldine-Atherton, 1971), 15.

[2] William A. Niskanen, Jr., "Bureaucrats and Politicians," Journal of Law and Economics 18 (December 1975): 618.

[3] Niskanen, Bureaucracy and Representative Government 25.

[4] Niskanen, "Bureaucrats and Politicians," Journal of Law and Economics 18 (December 1975): 618.

[5] Niskanen, Bureaucracy and Representative Government 64.

[6] Niskanen, "Bureaucrats and Politicians," Journal of Law and Economics 18 (December 1975): 630.

[7] Robert Staaf, "The Public School in Transition," Budgets and Bureaucrats, The Sources of Government Growth, ed. Thomas E. Borcherding (Durham, NC: Duke University Press, 1975), 155-158.

[8] Niskanen, "Bureaucrats and Politicians," Journal of Law and Economics 18 (December 1975): 620.

[9] Ibid., 620-621.

[10] Niskanen, Bureaucracy and Representative Government 38.

[11] Ibid., 41.

[12] Julius Margolis, "Bureaucrats and Politicians: Comment," Journal of Law and Economics 18 (December 1975): 646.

[13] Ibid., 649.

[14] Albert Breton and Ronald Wintrobe, "The Equilibrium Size of a Budget-maximizing Bureau: A Note on Niskanen's Theory of Bureaucracy," Journal of Political Economy 83 (1975): 198-200.

[15] Judith E. Gruber, Controlling Bureaucracies: Dilemmas in Democratic Governance (Berkeley: University of California Press, 1987), 62-64.

[16] Anthony Downs, Inside Bureaucracy (Boston: Little, Brown & Co., 1967), 209-210.

[17] Gruber, op. cit., 140-142.

[18] Thomas D. Snyder, "Trends in Public Elementary and Secondary Education Expenditures," American Education 20 (August/September, 1984): back cover.

[19] Beardsley Ruml, "Long Term Problems of Public School Finance," The Educational Digest XXI (November 1985): 73-75.

[20] Cliff Eagleton, "Returning Public Schools to Local Control," Education Digest (March 1985): 14-17.

[21] James S. Coleman and Thomas Hoffer, Public and Private High Schools: The Impact of Communities (New York: Basic Books, Inc., 1987), 7-8.

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